

GenCore version 5.1.3  
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OM nucleic - nucleic search, using sw model

Run on: December 2, 2002, 00:22:39 ; Search time 76.7209 Seconds  
(without alignments)  
10713.895 Million cell updates/sec

Title: US-09-856-979-7

Perfect score: 365

Sequence: 1 tcagccagaccatgggggc.....tccatcaagccgcgcgatg 365

Scoring table: IDENTITY\_NUC

Gapop 10\_0 , Gapext 1.0

Searched: 2185239 seqs, 1125999159 residues

Total number of hits satisfying chosen parameters: 4370478

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : N\_Geneseq\_101002.\*  
1: /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA1980.DAT.\*  
2: /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA1981.DAT.\*  
3: /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA1982.DAT.\*  
4: /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA1983.DAT.\*  
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21: /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA2000.DAT.\*  
22: /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA2001A.DAT.\*  
23: /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA2001B.DAT.\*  
24: /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA2002.DAT.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	365	100.0	365	22	AAF86443
2	365	100.0	1695	22	AAF86442
3	365	100.0	2275	22	AAF86440
4	365	100.0	2407	13	AAQ27488
5	365	100.0	2407	15	AAQ53881
6	365	100.0	5228	22	AAF86439
7	365	100.0	5349	19	AAV23239
8	365	100.0	6539	21	AAZ91097
9	365	100.0	6548	18	AAAT61394

c 10	365	100.0	6548	21	AAZ91096	E. coli plasmid pT
c 11	365	100.0	7492	22	AAF86441	Plasmid pT5346.. U
c 12	363.4	99.6	6548	17	AAT39336	Plasmid pT5174 use
c 13	360.4	98.7	6667	22	AAD03878	NotI fragment of p
c 14	360	98.6	1687	22	AAD03888	El promoter from r
c 15	35.2	9.6	1831	12	AAQ10213	BamHI G-P-J fragme
c 16	35.2	9.6	1831	12	AAQ10211	BamHI G-P-J fragme
c 17	34.4	9.4	1543	23	AAZ92206	DNA encoding novel
c 18	33	9.0	1302	24	AAI69430	Human TGR-6 DNA.
c 19	33	9.0	1305	22	AAZ07945	Human cDNA encodin
c 20	33	9.0	1305	22	AAH73513	Human G protein-co
c 21	33	9.0	1305	24	ABK12958	DNA sequence of hu
c 22	33	9.0	1993	24	ABK37669	Human G-protein co
c 23	32.8	9.0	42000	21	AAAG3349	Streptomyces globi
c 24	32.8	9.0	63164	21	AAAG63348	Streptomyces globi
c 25	32.6	8.9	517	20	AAS232196	Corn hexose carrie
c 26	31.8	8.7	1020	22	AAZ05311	Mouse alpha-1.3 ga
c 27	31.8	8.7	47981	22	AAF30757	Micromonospora meg
c 28	31.8	8.7	201143	24	ABK83568	Human DNA differen
c 29	31.6	8.7	660	24	ABL34265	Human immune syste
c 30	31.6	8.7	918	23	AAS56147	Salmonella typhi D
c 31	31.6	8.7	3001	21	AAH51747	Chromosome 13q31-q
c 32	31.6	8.7	3001	21	AAH51748	Chromosome 13q31-q
c 33	31.2	8.5	4403765	22	AAI99683	Mycobacterium tube
c 34	30.8	8.4	450	21	AAC35795	Zea mays DNA fragm
c 35	30.8	8.4	648	24	ABQ16664	Oligonucleotide fo
c 36	30.8	8.4	648	24	ABQ16665	Oligonucleotide fo
c 37	30.8	8.4	1442	23	AAS82722	DNA encoding novel
c 38	30.8	8.4	2739	24	ABQ90374	M. capsulatus gene
c 39	30.8	8.4	2739	24	ABQ90380	M. capsulatus gene
c 40	30.8	8.4	2833	22	AAH21930	Mouse metallopepte
c 41	30.8	8.4	2833	24	ABK71487	Murine clz.26 comp
c 42	30.6	8.4	300	24	ABL74341	Corn tassal-derive
c 43	30.6	8.4	914	22	AAI85445	Human polynucleoti
c 44	30.6	8.4	915	24	ABQ46268	Oligonucleotide fo
c 45	30.6	8.4	915	24	ABQ46269	Oligonucleotide fo

#### ALIGNMENTS

RESULT 1  
AAF86443  
ID AAF86443 standard; DNA; 365 BP.  
XX  
AC AAF86443;  
XX  
DT 25-JUN-2001 (first entry)  
XX  
DE Deleted El promoter.  
XX  
DE Male sterile plant; RNAase inhibitor; El promoter; ds.  
XX  
OS Synthetic.  
XX  
PN WO200124616-A1.  
XX  
PD 12-APR-2001.  
XX  
PF 12-SEP-2000; 2000WO-JP06222.  
XX  
PR 30-SEP-1999; 99JP-0279307.  
XX  
PA (NISR ) JAPAN TOBACCO INC.  
XX  
PI Hamada K, Nakakido F;  
XX  
DR WPI; 2001-266212/27.  
XX  
PT Method for producing male sterile rice and maize by inserting RNAse  
PT gene and RNAse inhibitor genes with promoters into the plant genome -  
XX Plasmid pT5172.  
XX Claim 8; Page 25; 29pp; Japanese.

XX The present invention relates to a method for producing male sterile  
 CC plants. The method comprises inserting a promoter fragment upstream of an  
 CC RNase gene and a second promoter, upstream of an RNase inhibitor protein  
 CC gene and inserting it into the plant genome. The method is useful for  
 CC producing male sterile tobacco, lettuce and rapeseed plants, but  
 CC preferably rice and maize. The present sequence is a deleted El promoter,  
 CC which was used in the method of the present invention.

SQ Sequence 365 BP; 86 A; 119 C; 82 G; 78 T; 0 other;

Query Match 100.0%; Score 365; DB 22; Length 365;  
 Best Local Similarity 100.0%; Pred. No. 1.9e-109;  
 Matches 365; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TCAGCCAGACCAATGGGGCAAAATTTACTACTATTGGCCATACATTAACCAACGTAATAAG 60  
 DB 1 TCAGCCAGACCAATGGGGCAAAATTTACTACTATTGGCCATACATTAACCAACGTAATAAG 60

QY 61 TCCTACACTCAACCTAACTGTTGAACGGTCTGTCTGGCAACGGTGAGAATGCACCTA 120  
 DB 61 TCCTACACTCAACCTAACTGTTGAACGGTCTGTCTGGCAACGGTGAGAATGCACCTA 120

QY 121 ATGGACGGGACAACACTTCTTTCACCGTCTACTGCTACATCTGTAGACGGTGCACCG 180  
 DB 121 ATGGACGGGACAACACTTCTTTCACCGTCTACTGCTACATCTGTAGACGGTGCACCG 180

QY 181 TGAGTGCTTTTCGCCATGACCGTCTCTGTTGTCAGTCTACTTGGCAGCGTTGCACCG 240  
 DB 181 TGAGTGCTTTTCGCCATGACCGTCTCTGTTGTCAGTCTACTTGGCAGCGTTGCACCG 240

QY 241 TGACTACCTGCGCATTGGCCCGCGCGTCTGCGCGCGCTACAAAAGCCACACGCGCAG 300  
 DB 241 TGACTACCTGCGCATTGGCCCGCGCGTCTGCGCGCGCTACAAAAGCCACACGCGCAG 300

QY 301 CGGCGCAGATAAACCATCTTAGCATCCCGTGTCCAGCAGAGATCCATCAAGCCGTCG 360  
 DB 301 CGGCGCAGATAAACCATCTTAGCATCCCGTGTCCAGCAGAGATCCATCAAGCCGTCG 360

QY 361 CGATG 365  
 DB 361 CGATG 365

RESULT 2  
 AAF86442  
 ID AAF86442 standard; DNA; 1695 BP.

XX AAF86442;

XX 25-JUN-2001 (first entry)

XX Rice El promoter.

XX Male sterile plant; RNase inhibitor; rice; El promoter; ds.

XX Oryza sativa.

XX WO200124616-A1.

XX 12-APR-2001.

XX 12-SEP-2000; 2000WO-JP06222.

XX 30-SEP-1999; 99JP-0279307.

XX (NISR) JAPAN TOBACCO INC.

XX Hamada K, Nakakido F;

XX WPI: 2001-266212/27.

XX Method for producing male sterile rice and maize by inserting RNase

PT gene and RNase inhibitor genes with promoters into the plant genome -  
 XX Claim 7; Page 24-25; 29pp; Japanese.

XX The present invention relates to a method for producing male sterile  
 CC plants. The method comprises inserting a promoter fragment upstream of an  
 CC RNase gene and a second promoter, upstream of an RNase inhibitor protein  
 CC gene and inserting it into the plant genome. The method is useful for  
 CC producing male sterile tobacco, lettuce and rapeseed plants, but  
 CC preferably rice and maize. The present sequence is the El promoter from  
 CC rice, which was used in the method of the present invention.

SQ Sequence 1695 BP; 503 A; 384 C; 357 G; 451 T; 0 other;

Query Match 100.0%; Score 365; DB 22; Length 1695;  
 Best Local Similarity 100.0%; Pred. No. 3.7e-109;  
 Matches 365; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TCAGCCAGACCAATGGGGCAAAATTTACTACTATTGGCCATACATTAACCAACGTAATAAG 60

DB 1331 TCAGCCAGACCAATGGGGCAAAATTTACTACTATTGGCCATACATTAACCAACGTAATAAG 1390

QY 61 TCCTACACTCAACCTAACTGTTGAACGGTCTGTCTGGCAACGGTGAGAATGCACCTA 120

DB 1391 TCCTACACTCAACCTAACTGTTGAACGGTCTGTCTGGCAACGGTGAGAATGCACCTA 1450

QY 121 ATGGACGGGACAACACTTCTTTCACCGTCTACTGCTACATCTGTAGACGGTGCACCG 180

DB 1451 ATGGACGGGACAACACTTCTTTCACCGTCTACTGCTACATCTGTAGACGGTGCACCG 1510

QY 181 TGAGTGCTTTTCGCCATGACCGTCTCTGTTGTCAGTCTACTTGGCAGCGTTGCACCG 240

DB 1511 TGAGTGCTTTTCGCCATGACCGTCTCTGTTGTCAGTCTACTTGGCAGCGTTGCACCG 1570

QY 241 TGACTACCTGCGCATTGGCCCGCGCGTCTGCGCGCGCTACAAAAGCCACACGCGCAG 300

DB 1571 TGACTACCTGCGCATTGGCCCGCGCGTCTGCGCGCGCTACAAAAGCCACACGCGCAG 1630

QY 301 CGGCGCAGATAAACCATCTTAGCATCCCGTGTCCAGCAGAGATCCATCAAGCCGTCG 360

DB 1631 CGGCGCAGATAAACCATCTTAGCATCCCGTGTCCAGCAGAGATCCATCAAGCCGTCG 1690

QY 361 CGATG 365

DB 1691 CGATG 1695

RESULT 3

AAF86440/c

ID AAF86440 standard; DNA; 2275 BP.

XX AAF86440;

XX 25-JUN-2001 (first entry)

XX Oligonucleotide #1: SEQ ID 4.

XX Male sterile plant; RNase inhibitor; ds.

XX Unidentified.

XX WO200124616-A1.

XX 12-APR-2001.

XX 12-SEP-2000; 2000WO-JP06222.

XX 30-SEP-1999; 99JP-0279307.

XX (NISB) JAPAN TOBACCO INC.

XX Hamada K, Nakakido F;

XX

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DR WPI; 2001-266212/27.
XX
PT Method for producing male sterile rice and maize by inserting RNase
PT gene and RNase inhibitor genes with promoters into the plant genome -
XX
XX Disclosure; Page 17-19; 29pp; Japanese.
XX
CC The present invention relates to a method for producing male sterile
CC plants. The method comprises inserting a promoter fragment upstream of an
CC RNase gene and a second promoter, upstream of an RNase inhibitor protein
CC gene and inserting it into the plant genome. The method is useful for
CC producing male sterile tobacco, lettuce and rapeseed plants, but
CC preferably rice and maize. The present sequence is an oligonucleotide
CC used in the method of the present invention.
XX
SQ Sequence 2275 BP; 604 A; 496 C; 496 G; 679 T; 0 other;

Query Match 100.0%; Score 365; DB 22; Length 2275;
Best Local Similarity 100.0%; Pred. No. 4.2e-109;
Matches 365; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TCAGCCAGACCAATGGGGCAAAATTTACTACTATTTGCCATACATTAAACCGTAAAG 60
Db 926 TCAGCCAGACCAATGGGGCAAAATTTACTACTATTTGCCATACATTAAACCGTAAAG 867

Qy 61 TCCTACACTCAACCTAACCTGTGAACGTCCTGTCTGCGCAACGGTGAGATGCACCTA 120
Db 866 TCCTACACTCAACCTAACCTGTGAACGTCCTGTCTGCGCAACGGTGAGATGCACCTA 807

Qy 121 ATGACGGGCAACACTTCTTTACCGTGCTACTGCTACATCTGTAGACGGTGGACGG 180
Db 806 ATGACGGGCAACACTTCTTTACCGTGCTACTGCTACATCTGTAGACGGTGGACGG 747

Qy 181 TGAGGTGCTTTGCGCATGACCGTCTCTGGTGTGTCAGTCACCTGCGCAGCGTTGCGCG 240
Db 746 TGAGGTGCTTTGCGCATGACCGTCTCTGGTGTGTCAGTCACCTGCGCAGCGTTGCGCG 587

Qy 241 TGACTCACCTGCGCAGTTCGCGCGCGCTGCGCGCGCTACAAAAGCCACACGCGAG 300
Db 686 TGACTCACCTGCGCAGTTCGCGCGCGCTGCGCGCGCTACAAAAGCCACACGCGAG 627

Qy 301 CGGCGCAGCATTAACCATCTAGCATCCCGGTGTCCAGCAAGAGATCCATCAAGCGCTCG 360
Db 626 CGGCGCAGCATTAACCATCTAGCATCCCGGTGTCCAGCAAGAGATCCATCAAGCGCTCG 567

Qy 361 CGATG 365
Db 566 CGATG 562

RESULT 4
AAQ27488
ID AAQ27488 standard; DNA; 2407 BP.
XX
XX AAQ27488;
AC
XX 10-FEB-1993 (first entry)
DF
DE GEI promoter and 5' gene portion.
XX
XX Immature; spikelet; microsporocyte; meiosis; anther; probe; leaf;
KW expression cassette; root; stamen; fertile pollen; ss.
XX
OS Oryza sativa.
XX
FH Key Location/Qualifiers
FT promoter 1..2263
FT /*tag= a
FT /label= pgi_promoter_region
FT TATA_signal 2181..2187
FT /*tag= b
FT misc_signal 2211
FT /*tag= c
```

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FT CDS /label= Transcription_initiation_site
FT FT 2264..2407
FT /*tag= d
FT /label= El_gene_5'_region
XX
PN W09213956-A.
XX
PD 20-AUG-1992.
XX
XX 06-FEB-1992; 92WO-EP00274.
PF
XX 08-FEB-1991; 91EP-0400318.
PR 27-SEP-1991; 91EP-0402590.
PR 10-DEC-1991; 91EP-0403352.
XX
XX (PLBZ ) PLANT GENETIC SYSTEMS NV.
XX
XX Komari T, Michiels F, Morioka S, Scheirlinck T;
PI WPI; 1992-300042/36.
XX
XX Stamen-specific plant promoters - for producing male-sterile or
PT male-fertility-restored monocotyledons, e.g. rice
XX
XX Disclosure; Page 47-48; 58pp; English.
XX
XX The sequences given in AAQ27486-88 are the promoter regions of stamen-
CC specific rice genes. These genes were isolated by using male flower-
CC specific cDNA's as probes (see AAQ27481-5). The gene sequences isolated
CC can be used for producing transgenic male-sterile monocots. These
CC promoters can be used to form expression cassettes which can be
CC used to provide gene expression predominantly in the stamen cells
CC of a plant, and do not provide gene expression in the other parts of
CC the plant that are not involved in the production of fertile pollen.
XX
SQ Sequence 2407 BP; 662 A; 543 C; 507 G; 695 T; 0 other;

Query Match 100.0%; Score 365; DB 13; Length 2407;
Best Local Similarity 100.0%; Pred. No. 4.3e-109;
Matches 365; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TCAGCCAGACCAATGGGGCAAAATTTACTACTATTTGCCATACATTAAACCGTAAAG 60
Db 1902 TCAGCCAGACCAATGGGGCAAAATTTACTACTATTTGCCATACATTAAACCGTAAAG 1961

Qy 61 TCCTACACTCAACCTAACCTGTGAACGTCCTGTCTGCGCAACGGTGAGATGCACCTA 120
Db 1962 TCCTACACTCAACCTAACCTGTGAACGTCCTGTCTGCGCAACGGTGAGATGCACCTA 2021

Qy 121 ATGACGGGCAACACTTCTTTACCGTGCTACTGCTACATCTGTAGACGGTGGACGG 180
Db 2022 ATGACGGGCAACACTTCTTTACCGTGCTACTGCTACATCTGTAGACGGTGGACGG 2081

Qy 181 TGAGGTGCTTTGCGCATGACCGTCTCTGGTGTGTCAGTCACCTGCGCAGCGTTGCGCG 240
Db 2082 TGAGGTGCTTTGCGCATGACCGTCTCTGGTGTGTCAGTCACCTGCGCAGCGTTGCGCG 2141

Qy 241 TGACTCACCTGCGCAGTTCGCGCGCGCTGCGCGCGCTACAAAAGCCACACGCGAG 300
Db 2142 TGACTCACCTGCGCAGTTCGCGCGCGCTGCGCGCGCTACAAAAGCCACACGCGAG 2201

Qy 301 CGGCGCAGCATTAACCATCTAGCATCCCGGTGTCCAGCAAGAGATCCATCAAGCGCTCG 360
Db 2202 CGGCGCAGCATTAACCATCTAGCATCCCGGTGTCCAGCAAGAGATCCATCAAGCGCTCG 2261

Qy 361 CGATG 365
Db 2262 CGATG 2266

RESULT 5
AAQ53881
ID AAQ53881 standard; DNA; 2407 BP.
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XX 06-JUN-2000 (first entry)
XX E. coli plasmid pTS431 containing mutant barnase gene.
XX
XX Male sterile plant; mutant barnase gene; anther-specific expression;
XX low fidelity PCR; primer; plant breeding; ss.
XX Synthetic.
XX
XX WO200008176-A1.
XX
XX 17-FEB-2000.
XX
XX 03-AUG-1999; 99WO-JP04167.
XX
XX 04-AUG-1998; 98JP-0220060.
XX
XX (NISB ) JAPAN TOBACCO INC.
XX
XX Hamada K, Nakakido F;
XX
XX WPI; 2000-195581/17.
XX
XX Mutate barnase gene for efficient construction of plant transformants,
XX particularly male sterile plants free from any undesirable characters
XX by specifically expressing the gene alone in anther -
XX
XX Example 3; Page 23-27; 30pp; Japanese.
XX
XX The invention relates to the generation of male sterile plants by
XX the introduction of a mutant barnase gene (AA291095) for expression
XX specifically in the anther of a plant. This sequence represents the
XX E. coli/Agrobacterium shuttle vector plasmid pTS172 which contains
XX the mutated barnase gene (AA291095) under control of the cauliflower
XX mosaic virus 35S promoter. The vector also contains a region of the
XX Agrobacterium T-DNA gene 7. The vector is used for transmitting the
XX barnase gene to plants via an Agrobacterium tumefaciens host cell.
XX The transformed plant is used in plant breeding.
XX
XX Sequence 6539 BP; 1755 A; 1578 C; 1519 G; 1687 T; 0 other;
XX
XX Query Match 100.0%; Score 365; DB 21; Length 6539;
XX Best Local Similarity 100.0%; Pred. No. 6.7e-109;
XX Matches 365; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 TCAGCCAGACCAATGGGGCAAAATTTACTACTATTTGCCATACATTAAACACGTAAGAAG 60
Db 2977 TCAGCCAGACCAATGGGGCAAAATTTACTACTATTTGCCATACATTAAACACGTAAGAAG 2918
QY 61 TCCTACACTCAACCTAACTGTTGAACGGTCTGTCTGCGCAACGGTGAGATGCACCTA 120
Db 2917 TCCTACACTCAACCTAACTGTTGAACGGTCTGTCTGCGCAACGGTGAGATGCACCTA 2858
QY 121 ATGGACGGGACAACTCTTTTACCGGTGCTACTGCTACTATCCTGTAGACGGTGGACGCG 180
Db 2857 ATGGACGGGACAACTCTTTTACCGGTGCTACTGCTACTATCCTGTAGACGGTGGACGCG 2798
QY 181 TGAGGTGCTTTGCCATGACCGTCTTGGTGTTCGACGTACTTGGCGACGCTTCCACCG 240
Db 2797 TGAGGTGCTTTGCCATGACCGTCTTGGTGTTCGACGTACTTGGCGACGCTTGGACCG 2738
QY 241 TGACTCAGCTGCCATTTGCCCGCCGCTGCGCGGCGCTACAAAAGCCACACGACGACG 300
Db 2737 TGACTCAGCTGCCATTTGCCCGCCGCTGCGCGGCGCTACAAAAGCCACACGACGACG 2678
QY 301 CGGGCCAGGATAAACCCTCTAGCATCCCGGTGTCCAGCAAGAGATCCATCAAGCCGTCG 360
Db 2677 CGGGCCAGGATAAACCCTCTAGCATCCCGGTGTCCAGCAAGAGATCCATCAAGCCGTCG 2618
QY 361 CGATG 365
Db 2617 CGATG 2613
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RESULT 9
AAT61394/c
ID AAT61394 standard; DNA: 6548 BP.
XX
XX AAT61394;
XX
XX 07-MAY-1997 (first entry)
XX
XX Plasmid pTS172.
XX
XX Transgenic plant; poly-(ADP-ribose) polymerase inhibitor; PAPP;
XX niacinamide; Agrobacterium; T-DNA; male sterile; barnase;
XX ribonuclease; RNase; cereal; wheat; Triticum aestivum;
XX plasmid pTS172; ds.
XX
XX Chimeric Agrobacterium sp.;
XX Chimeric Oryza sativa;
XX Chimeric cauliflower mosaic virus.
XX
XX Key Location/Qualifiers
XX 3'UTR complement (2019..2288)
XX /*tag= a
XX /label= 3'nos
XX /note= "3' untranslated region contg. the poly-A
XX signal of Agrobacterium T-DNA nopaline
XX synthase gene"
XX CDS complement (2289..2624)
XX /*tag= b
XX /product= barnase
XX complement (2625..4313)
XX /*tag= c
XX /label= PE1
XX /note= "promoter region of rice El gene"
XX promoter complement (4336..5710)
XX /*tag= d
XX /label= p35S
XX /note= "35S promoter region of cauliflower mosaic
XX virus"
XX CDS 5711..6262
XX /*tag= e
XX /label= Bar
XX /note= "phosphinothricin acetyltransferase"
XX 6243..6496
XX 3'UTR /*tag= f
XX /label= 3'g7
XX /note= "3' untranslated region contg. the poly-A
XX signal of gene 7 of Agrobacterium T-DNA"
XX
XX EP757102-A1.
XX
XX 05-FEB-1997.
XX
XX 04-AUG-1995; 95EP-0401844.
XX
XX 04-AUG-1995; 95EP-0401844.
XX
XX (PLB2 ) PLANT GENETIC SYSTEMS NV.
XX
XX De Block M;
XX
XX WPI; 1997-111050/11.
XX
XX Prodn. of transgenic plants using a poly-(ADP-ribose) polymerase
XX inhibitor - reduces the cultured cells response to stress and
XX reduces metabolism
XX
XX Example 2; Page 17-20; 25pp; English.
XX
XX Plasmid pTS172 (AAT61394) contains the barnase coding sequence under
XX control of the rice El gene stamen-specific promoter and a
XX phosphinothricin acetyltransferase coding sequence under control of
```

CC the CaMV 35S promoter. Plasmid pTS172 and plasmid pTS772 (see also  
CC AATG1395) were used to transform wheat Spring variety Pavon calli via  
CC particle bombardment. Some calli were treated with the poly-(ADP-  
CC ribose) polymerase inhibitor niacinamide before, or before and  
CC after, bombardment. Healthy, male sterile plants were regenerated  
CC only from bombarded calli that were treated with niacinamide. This  
CC was believed to be due to more faithful expression characteristics  
CC of the integrated stamen-selective barnase gene in these calli  
CC and regenerated shoots. For plants transformed with pTS172,  
CC foreign DNA was stably incorporated in the wheat genome in 2-3  
CC copies.  
XX  
XX  
SQ Sequence 6548 BP; 1756 A; 1579 C; 1523 G; 1690 T; 0 other;  
Query Match 100.0%; Score 365; DB 18; Length 6548;  
Best Local Similarity 100.0%; Pred. No. 6.7e-109;  
Matches 365; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
QY 1 TCAGCCAGACCAATGGGGCAAAATTTACTACTATTGGCCATACATTAAACCGTAAAG 60  
DB 2986 TCAGCCAGACCAATGGGGCAAAATTTACTACTATTGGCCATACATTAAACCGTAAAG 2927  
QY 61 TCCTACACTCAACTTCTGTTGAACGGTCCCTGTTGGCCACGGTGAGATGCACCTA 120  
DB 2926 TCCTACACTCAACTTCTGTTGAACGGTCCCTGTTGGCCACGGTGAGATGCACCTA 2867  
QY 121 ATGGACGGGACAACACCTTCTTCCACGGTCTACTGCTACATCTCTGTAGACGGTGCACGG 180  
DB 2866 ATGGACGGGACAACACCTTCTTCCACGGTCTACTGCTACATCTCTGTAGACGGTGCACGG 2807  
QY 181 TGAGTGTCTTTCGCCATGACCGTCTTGGTTGTCAGTCACTTGGCCACGGTTCGACCG 240  
DB 2806 TGAGTGTCTTTCGCCATGACCGTCTTGGTTGTCAGTCACTTGGCCACGGTTCGACCG 2747  
QY 241 TGACTCACTGCGACATGCGCCGCGCGCTCGCCGGCGCTACAAAGCCACACCGCAG 300  
DB 2746 TGACTCACTGCGACATGCGCCGCGCGCTCGCCGGCGCTACAAAGCCACACCGCAG 2687  
QY 301 CGGGCCAGGATPACCCATCTCTAGCATTCGCGGTGTCAGCAAGAGATCCATCAAGCGGTG 360  
DB 2686 CGGGCCAGGATPACCCATCTCTAGCATTCGCGGTGTCAGCAAGAGATCCATCAAGCGGTG 2627  
QY 361 CGATG 365  
DB 2626 CGATG 2622  
RESULT 10  
ID AA291096/c  
AC AA291096;  
XX  
XX  
DT 06-JUN-2000 (first entry)  
XX  
XX  
DE E. coli plasmid pTS172 containing synthetic barnase gene.  
KW Male sterile plant; mutant barnase gene; anther-specific expression;  
KW low fidelity PCR; primer; plant breeding; ss.  
XX  
XX  
OS Synthetic.  
XX  
XX  
PN WO200008176-A1.  
XX  
XX  
PD 17-FEB-2000.  
XX  
XX  
PF 03-AUG-1999; 99WO-JP04167.  
XX  
XX  
PR 04-AUG-1998; 98JP-0220060.  
XX  
XX  
PA (NISR) JAPAN TOBACCO INC.  
XX  
XX  
PI Hamada K, Nakakido F;

XX WPI; 2000-195581/17.  
XX  
XX Mutate barnase gene for efficient construction of plant transformants,  
XX particularly male sterile plants free from any undesirable characters  
XX by specifically expressing the gene alone in anther.  
XX  
XX Example 3; Page 19-23; 30pp; Japanese.  
XX  
XX The invention relates to the generation of male sterile plants by  
XX the introduction of a mutant barnase gene (AA291095) for expression  
XX specifically in the anther of a plant. This sequence represents the  
XX E. coli/Agrobacterium shuttle vector plasmid pTS172 which contains  
XX the synthetic barnase gene (AA291094) under control of the cauliflower  
XX mosaic virus 35S promoter. The vector also contains a region of the  
XX Agrobacterium T-DNA gene 7. The vector is used for transmitting the  
XX barnase gene to plants via an Agrobacterium tumefaciens host cell.  
XX The transformed plant is used in plant breeding.  
XX  
XX Sequence 6548 BP; 1756 A; 1579 C; 1523 G; 1690 T; 0 other;  
Query Match 100.0%; Score 365; DB 21; Length 6548;  
Best Local Similarity 100.0%; Pred. No. 6.7e-109;  
Matches 365; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
QY 1 TCAGCCAGACCAATGGGGCAAAATTTACTACTATTGGCCATACATTAAACCGTAAAG 60  
DB 2986 TCAGCCAGACCAATGGGGCAAAATTTACTACTATTGGCCATACATTAAACCGTAAAG 2927  
QY 61 TCCTPACACTCAACCTAACTGTTGAACGGTCTCTGTTGGCCACGGTGAGATGCACCTA 120  
DB 2926 TCCTPACACTCAACCTAACTGTTGAACGGTCTCTGTTGGCCACGGTGAGATGCACCTA 2867  
QY 121 ATGGACGGGACAACACTTCTTTCACGGTCTACTGCTACATCTCTGTAGACGGTGCACGG 180  
DB 2866 ATGGACGGGACAACACTTCTTTCACGGTCTACTGCTACATCTCTGTAGACGGTGCACGG 2807  
QY 181 TGAGTGTCTTTCGCCATGACCGTCTTGGTTGTCAGTCACTTGGCCACGGTTCGACCG 240  
DB 2806 TGAGTGTCTTTCGCCATGACCGTCTTGGTTGTCAGTCACTTGGCCACGGTTCGACCG 2747  
QY 241 TGACTCACTGCGACATGCGCCGCGCGCTCGCCGGCGCTACAAAGCCACACCGCAG 300  
DB 2746 TGACTCACTGCGACATGCGCCGCGCGCTCGCCGGCGCTACAAAGCCACACCGCAG 2687  
QY 301 CGGGCCAGGATPACCCATCTCTAGCATTCGCGGTGTCAGCAAGAGATCCATCAAGCGGTG 360  
DB 2686 CGGGCCAGGATPACCCATCTCTAGCATTCGCGGTGTCAGCAAGAGATCCATCAAGCGGTG 2627  
QY 361 CGATG 365  
DB 2626 CGATG 2622  
RESULT 11  
ID AAF86441/c  
AC AAF86441 standard; DNA; 7492 BP.  
XX  
XX  
AC AAF86441;  
XX  
XX  
DT 25-JUN-2001 (first entry)  
XX  
XX  
DE Plasmid pTS346.  
XX  
XX  
KW Male sterile plant; RNAase inhibitor; plasmid pTS346; ds.  
XX  
XX  
OS Unidentified.  
XX  
XX  
PN WO200124616-A1.  
XX  
XX  
PD 12-APR-2001.  
XX  
XX  
PF 12-SEP-2000; 2000WO-JP06222.

```
XX PR 30-SEP-1999; 99JP-0279307.
XX (NISB ) JAPAN TOBACCO INC.
XX PA Hamada K, Nakakido F;
XX PI WPI; 2001-266212/27.
XX DR Method for producing male sterile rice and maize by inserting RNase
XX PT gene and RNase inhibitor genes with promoters into the plant genome -
XX FT Disclosure: Page 19-23; 29pp; Japanese.
XX PS The present invention relates to a method for producing male sterile
XX CC plants. The method comprises inserting a promoter fragment upstream of an
XX CC RNase gene and a second promoter, upstream of an RNase inhibitor protein
XX CC gene and inserting it into the plant genome. The method is useful for
XX CC producing male sterile tobacco, lettuce and rapeseed plants, but
XX CC preferably rice and maize. The present sequence is a vector used in
XX CC the method of the present invention.
XX CC
XX SQ Sequence 7492 BP; 1987 A; 1801 C; 1752 G; 1952 T; 0 other;
XX
XX Query Match 100.0%; Score 365; DB 22; Length 7492;
XX Best Local Similarity 100.0%; Pred. No. 7.1e-109;
XX Matches 365; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
XX
QY 1 TCAGCCAGACCAATGGGGCAAAATTTACTACTATTGGCCATACATTAAACGATAAAAG 60
DB 3912 TCAGCCAGACCAATGGGGCAAAATTTACTACTATTGGCCATACATTAAACGATAAAAG 3853
QY 61 TCCTACTACTCAACTCACTGTCAGCGTCCTGTTCTGGCCAGCGTGAGATGCACCTA 120
DB 3852 TCCTACTACTCAACTCACTGTCAGCGTCCTGTTCTGGCCAGCGTGAGATGCACCTA 3793
QY 121 ATGGACGGGACACACACTTCTTCCACCGTCTACTGCTACATCTGTAGAGGTGGACGG 180
DB 3792 ATGGACGGGACACACACTTCTTCCACCGTCTACTGCTACATCTGTAGAGGTGGACGG 3733
QY 181 TGAGGTGCTTTGGCGATGACCGTCTTGGTGTGTCAGTCACTTGGCGACGCTTGACCG 240
DB 3732 TGAGGTGCTTTGGCGATGACCGTCTTGGTGTGTCAGTCACTTGGCGACGCTTGACCG 3673
QY 241 TCAGTCACCTGCCACATTGCGCGCGCGCTACAAAAGCCACACACGCG 300
DB 3672 TGAGTCACCTGCCACATTGCGCGCGCGCTACAAAAGCCACACACGCGCG 3613
QY 301 CCGGCCAGCATAAACCATCTAGCATCCCGGTGTCAGCAAGAGATCCATCAAGCGGTGG 360
DB 3612 CCGGCCAGCATAAACCATCTAGCATCCCGGTGTCAGCAAGAGATCCATCAAGCGGTGG 3553
QY 361 CGATG 365
DB 3552 CGATG 3548
XX
XX RESULT 12
XX AAT39336/C
XX ID AAT39336 standard; DNA; 6548 BP.
XX AC AAT39336;
XX CC AAT39336;
XX DT 22-JAN-1997 (first entry)
XX DE Plasmid pTS174 used to obtain male sterile rice.
XX KW Plasmid pTS174; male sterile; barnase; ribonuclease; transgenic plant;
XX KW rice; Oryza sativa; ds; cyclic.
XX OS Synthetic.
XX FT Key, Location/Qualifiers
```

```
FT misc_feature 1..2003
FT FT /tag= a
FT FT /label= Vector
FT FT /note= "pUC19 derived vector sequences"
FT FT complement (2019..2283)
FT FT /tag= b
FT FT /label= 3'nos
FT FT /note= "region containing polyadenylation signal
FT FT nopaline synthase gene of Agrobacterium
FT FT T-DNA"
FT FT complement (2284..2624)
FT FT /tag= c
FT FT /label= Barnase
FT FT /product= Bacillus amyloliquefaciens barnase
FT FT complement (2625..4313)
FT FT /tag= d
FT FT /label= PEI
FT FT /function= promoter of the stamen-specific E1 gene
FT FT of rice
FT FT 4336..5710
FT FT /tag= e
FT FT /label= P35S
FT FT /function= 35S promoter of cauliflower mosaic virus
FT FT 5711..6262
FT FT /tag= f
FT FT /label= bar
FT FT /product= phosphinothricin acetyltransferase
FT FT 6263..6496
FT FT /tag= g
FT FT /label= 3'g7
FT FT /function= region containing polyadenylation signal
XX
XX WO9626283-A1.
PN 29-AUG-1996.
XX
XX 21-FEB-1996; 96WO-EP00722.
XX
XX 21-FEB-1995; 95EP-0400364.
XX
XX (PLBZ ) PLANT GENETIC SYSTEMS NV.
XX
XX Botterman J, Cornelissen M, Michiels F;
XX
XX WPI; 1996-402373/40.
XX
XX Prodn. of male sterile plants by transforming with a chimaeric
XX PT construct - comprising a male sterility DNA e.g. barnase and a
XX PT co-regulating gene, e.g. barstar, into the nuclear genome, useful
XX PT for generating hybrid cultivars
XX
XX Example 1; Page 33-37; 56pp; English.
XX
XX Plasmid pTS174 (AAT39336) contains Bacillus barnase DNA under control
XX CC of the stamen-specific PEI promoter. Embryogenic callus from rice
XX CC cv. Kochibiki was transformed with pTS174 alone or with pTS88
XX CC (see also AAT39337), a plasmid contg. barstar DNA under control of a
XX CC 35S promoter. With pTS174 alone, 1 male sterile line was recovered
XX CC from 48 electroporation cuvettes. With both plasmids, 7 normal
XX CC male sterile lines were recovered from 40 cuvettes. Barnase
XX CC expression disturbed the function of stamen cells leading to male
XX CC sterility. Constitutive expression of barstar counteracted any low
XX CC level expression of barnase in non-stamen tissue.
XX
XX SQ Sequence 6548 BP; 1757 A; 1578 C; 1523 G; 1690 T; 0 other;
XX
XX Query Match 99.6%; Score 363.4; DB 17; Length 6548;
XX Best Local Similarity 99.7%; Pred. No. 2.2e-108;
XX Matches 364; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
XX
QY 1 TCAGCCAGACCAATGGGGCAAAATTTACTACTATTGGCCATACATTAAACGATAAAAG 60
DB 2986 TCAGCCAGACCAATGGGGCAAAATTTACTACTATTGGCCATACATTAAACGATAAAAG 2927
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Qy 61 TCCTACACTCAACTACTGTTGACGGTCCCTGTTCTTGGCCCAACGGTGAGATGCACCTA 120
Db 2926 TCCTACACTCAACTACTGTTGACGGTCCCTGTTCTTGGCCCAACGGTGAGATGCACCTA 2867
Qy 121 ATGACGGGCAACACTCTCTTCCACCGTCTACTGCTACATCTCTGTAGACGGTGGACGCG 180
Db 2866 ATGACGGGCAACACTCTCTTCCACCGTCTACTGCTACATCTCTGTAGACGGTGGACGCG 2807
Qy 181 TGAGGTCTTTCCGCATGACCGTCTCTTGGTTGTCAGTCACTTGGCCGACGCTTGACCG 240
Db 2806 TGAGGTCTTTCCGCATGACCGTCTCTTGGTTGTCAGTCACTTGGCCGACGCTTGACCG 2747
Qy 241 TGACTCACTTGCACACATFTGCCCGCGCGCTGCGCGCGCTTACAAAAGCCACACGACG 300
Db 2746 TGACTCACTTGCACACATFTGCCCGCGCGCTGCGCGCGCTTACAAAAGCCACACGACG 2687
Qy 301 CCGGCCACGATACCCATCCAGCATCCCGGTGTCAGCAGAGATCCATCAAGCCGCTCG 360
Db 2686 CCGGCCACGATACCCATCCAGCATCCCGGTGTCAGCAGAGATCCATCAAGCCGCTCG 2627
Qy 361 CGATG 365
Db 2626 CGATG 2622

RESULT 13
AND03878
ID AD03878 standard; DNA; 6667 BP.
AC AAD03878;
DT 02-JUL-2001 (first entry)
DE NotI fragment of plasmid pADP73 comprising deacetylase coding sequence.
KW Deacetylase; hybrid seed; wheat; stamen selective promoter; maize; pea;
KW male-sterile cereal crop; chimeric; acetylated toxin; plasmid pADP73;
KW N-acetyl phosphinothricin; N-acetyl ppt; El promoter; NotI fragment;
KW Cauliflower mosaic virus; CamV; rice; ds.
OS Chimeric - Stenotrophomonas sp.
OS Chimeric - Zea mays.
OS Chimeric - Agrobacterium tumefaciens.
OS Chimeric - Cauliflower mosaic virus.
OS Chimeric - Pisum sativum.
OS Chimeric - Unidentified.
OS Chimeric - Oryza sativa.
XX Key Location/Qualifiers
FH misc_feature 12..35 /*tag= a
FT /*note= "Left T-DNA border from pTIT37 of A. tumefaciens
FT (counterclockwise)"
FT misc_feature 77..130 /*tag= b
FT /*note= "Target sequence for frt/flip excision system"
FT promoter 157..1061 /*tag= c
FT /*label= Ubiquitin_promoter
FT /*note= "Derived from maize"
FT exon 1062..1142 /*tag= d
FT /*number= 1
FT /*note= "Exon of ubi gene"
FT intron 1143..2152 /*tag= e
FT /*number= 1
FT /*note= "Intron of ubi gene"
FT 5'UTR 2174..2240 /*tag= f
FT /*note= "5' untranslated leader sequence from pea
FT cab22 gene"

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FT CDS 2242..2853
FT /*tag= g
FT /*product= "Gentamycin acetyltransferase"
FT 3'UTR 2856..3090 /*tag= h
FT /*note= "Derived from CamV 35S transcript"
FT misc_feature 3123..3176 /*tag= i
FT /*note= "Target sequence for frt/flip excision system"
FT promoter 3237..4923 /*tag= j
FT /*label= PEI_promoter
FT /*note= "Derived from rice"
FT CDS 4938..6257 /*tag= k
FT /*product= "Stenotrophomonas sp. deacetylase (AAE00587)"
FT 3'UTR 6325..6520 /*tag= l
FT /*note= "Derived from CamV 35S transcript"
FT misc_feature 6571..6548 /*tag= m
FT /*note= "Right T-DNA border from pTIT37 of A. tumefaciens
FT (counterclockwise)"
FT W0200129237-A2.
XX
XX 26-APR-2001.
XX
XX 13-OCT-2000; 2000WO-EP10281.
XX
XX 15-OCT-1999; 99US-0418817.
XX (AVET ) AVENTIS CROPS SCIENCE NV.
XX
XX Quandt J, Bartsch K, Knittel N;
XX
XX WPI: 2001-290923/30.
XX P-PSDB; AAE00587.
XX
XX Producing conditionally male-sterile wheat plants by introducing into
XX genome of wheat cell or tissue foreign DNA having DNA molecule encoding
XX deacetylase under control of stamen selective promoter, regenerating
XX plants.
XX
XX Example 2; Page 49-51; 58pp; English.
XX
XX The invention relates to a method for producing male-sterile wheat
XX plants by transforming the wheat plant cell or tissue with chimeric gene
XX comprising DNA molecule encoding deacetylase from Stenotrophomonas sp.
XX deposit number DSM 9734 and a stamen selective promoter like CA55, T72
XX or E1. The wheat plant is regenerated from cell or tissue and acetylated
XX toxin (N-acetyl phosphinothricin referred as N-acetyl ppt) is applied to
XX the wheat plant to make it male sterile. The method is useful
XX for producing conditionally male-sterile cereal crops such as barley,
XX rye, oats and most particularly wheat. The conditionally male-sterile
XX plants can be used in wheat breeding to produce composite hybrid wheat
XX seed or pure hybrid wheat seed.
XX The present sequence is a NotI fragment of plasmid pADP73 containing
XX a marker gene cassette and deac (deacetylase) gene expression cassette.
XX The marker gene cassette comprises Ubiquitin promoter from maize
XX containing its first exon and first intron, linked to the 5' untranslated
XX leader sequence of the cab22 gene from pea, operably linked to the
XX gentamycin acetyltransferase (GAT) coding sequence and the 3'
XX untranslated (UTR) sequence from the cauliflower mosaic virus (CaMV) 35S
XX transcript. The whole marker gene cassette is flanked by frtI/frt2
XX sequences as part of the flip/frt excision system. The NotI fragment also
XX contains a deac gene expression cassette comprising the tapetum-specific
XX promoter El from rice operably linked to the deac coding sequence and
XX the 3' UTR from the CamV 35S transcript. The complete insert is flanked
XX by left and right T-DNA border sequences from Ti-plasmid pTIT37 of
XX Agrobacterium tumefaciens.
XX
XX Sequence 6667 BP; 1644 A; 1675 C; 1612 G; 1736 T; 0 other;
XX

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```
Query Match      98.7%; Score 360.4; DB 22; Length 6667;
Best Local Similarity 99.7%; Pred. No. 2.2e-107;
Matches 361; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 TCAGCCAGACCAATGGGGCAAAATTTACTACTATTTGGCCATACATTAAACGACGTAAAG 60
DB 4564 TCAGCCAGACCAATGGGGCAAAATTTACTACTATTTGGCCATACATTAAACGACGTAAAG 4623

QY 61 TCCTACACTCAACCTAAGCTTGAAGGTCCTGTTGCGGCAACGGTGAGAAATGCACCTA 120
DB 4624 TCCTACACTCAACCTAAGCTTGAAGGTCCTGTTGCGGCAACGGTGAGAAATGCACCTA 4683

QY 121 ATGGAGGGGACAAACACTCTTTTCACCGTGTACTGCTACATCCTGTAGACGGTGGACGG 180
DB 4684 ATGGAGGGGACAAACACTCTTTTCACCGTGTACTGCTACATCCTGTAGACGGTGGACGG 4743

QY 181 TGAGGTGCTTTGCGCATGACCGTCTGTTGTTGCGAGTCACTTGGCAGGCTTGCACGG 240
DB 4744 TGAGGTGCTTTGCGCATGACCGTCTGTTGTTGCGAGTCACTTGGCAGGCTTGCACGG 4803

QY 241 TGACTCACCCTGCGACATTGGCCCCCGCGTCCGCGCGCGCTACAAAAGCCACACGACG 300
DB 4804 TGACTCACCCTGCGACATTGGCCCCCGCGTCCGCGCGCGCTACAAAAGCCACACGACG 4863

QY 301 CCGGCCACGATACCCATCCTAGCATCCCGGTGTCAGGCAAGAGATCCATCAGCGCGT 360
DB 4864 CCGGCCACGATACCCATCCTAGCATCCCGGTGTCAGGCAAGAGATCCATCAGCGCGT 4923

QY 361 CG 362
DB 4924 GG 4925

RESULT 14
AAD03888
ID AAD03888 standard; DNA; 1687 BP.
XX
AC AAD03888;
XX
DT 02-JUL-2001 (first entry)
XX
DE El promoter from rice.
XX
KW Deacetylase; hybrid seed; wheat; stamen selective promoter; El promoter;
KW male-sterile cereal crop; acetylated toxin; N-acetyl phosphinothricin;
KW N-acetyl PPT; rice; ds.
XX
OS Oryza sativa.
XX
PN WO200129237-A2.
XX
PD 26-APR-2001.
XX
PF 13-OCT-2000; 2000WO-EPI0281.
XX
PR 15-OCT-1999; 99US-0418817.
XX
PA (AVET ) AVENTIS CROPS SCIENCE NV.
XX
PI Quandt J, Bartsch K, Knittel N;
XX
DR WPI; 2001-290923/30.
XX
PT Producing conditionally male-sterile wheat plants by introducing into
PT genome of wheat cell or tissue foreign DNA having DNA molecule encoding
PT deacetylase under control of stamen selective promoter, regenerating
PT plants.
XX
PS Claim 8; Page 58; 58pp; English.
XX
CC The invention relates to a method for producing male-sterile wheat
plants by transforming the wheat plant cell or tissue with chimeric gene
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```
comprising DNA molecule encoding deacetylase from Stenotrophomonas sp.
deposit number DSM 9734 and a stamen selective promoter like CAS5, 172
or El. The wheat plant is regenerated from cell or tissue and acetylated
toxin (N-acetyl phosphinothricin referred as N-acetyl PPT) is applied to
the wheat plant to make it male sterile. The method is useful
for producing conditionally male-sterile cereal crops such as barley,
rye, oats and most particularly wheat. The conditionally male-sterile
plants can be used in wheat breeding to produce composite hybrid wheat
seed or pure hybrid wheat seed.
CC The present sequence is stamen selective promoter El promoter from
CC rice.
CC Note: The present sequence is described as a chimeric gene comprising
CC deacetylase coding sequence and El promoter sequence throughout the
CC specification. However, the sequence contains only the El promoter.
XX
SQ Sequence 1687 BP; 502 A; 381 C; 354 G; 450 T; 0 other;

Query Match      98.6%; Score 360; DB 22; Length 1687;
Best Local Similarity 100.0%; Pred. No. 1.6e-107;
Matches 360; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TCAGCCAGACCAATGGGGCAAAATTTACTACTATTTGGCCATACATTAAACGACGTAAAG 60
DB 1328 TCAGCCAGACCAATGGGGCAAAATTTACTACTATTTGGCCATACATTAAACGACGTAAAG 1387

QY 61 TCCTACACTCAACCTAAGCTTGAAGGTCCTGTTGCGGCAACGGTGAGAAATGCACCTA 120
DB 1388 TCCTACACTCAACCTAAGCTTGAAGGTCCTGTTGCGGCAACGGTGAGAAATGCACCTA 1447

QY 121 ATGGAGGGGACAAACACTCTTTTCACCGTGTACTGCTACATCCTGTAGACGGTGGACGG 180
DB 1448 ATGGAGGGGACAAACACTCTTTTCACCGTGTACTGCTACATCCTGTAGACGGTGGACGG 1507

QY 181 TGAGGTGCTTTGCGCATGACCGTCTGTTGTTGCGAGTCACTTGGCAGGCTTGCACGG 240
DB 1508 TGAGGTGCTTTGCGCATGACCGTCTGTTGTTGCGAGTCACTTGGCAGGCTTGCACGG 1567

QY 241 TGACTCACCCTGCGACATTGGCCCCCGCGTCCGCGCGCGCTACAAAAGCCACACGACG 300
DB 1568 TGACTCACCCTGCGACATTGGCCCCCGCGTCCGCGCGCGCTACAAAAGCCACACGACG 1627

QY 301 CCGGCCACGATACCCATCCTAGCATCCCGGTGTCAGGCAAGAGATCCATCAGCGCGT 360
DB 1628 CCGGCCACGATACCCATCCTAGCATCCCGGTGTCAGGCAAGAGATCCATCAGCGCGT 1687

RESULT 15
AAD03888
ID AAD03888 standard; DNA; 1831 BP.
XX
AC AAD03888;
XX
DT 17-DEC-2001 (updated)
DT 27-MAR-1991 (first entry)
XX
DE BamHI G-P-J fragment carrying sequences characteristic of latent
DE pseudorabies virus.
XX
KW PRV; ss.
XX
OS Pseudorabies virus.
XX
PN USN7537855-N.
XX
PD 18-DEC-1990.
XX
PF 13-JUN-1990; 90US-0238940.
XX
PR 13-JUN-1990; 90US-0537855.
XX
PA (USDA ) US AGRIC RES SERV.
XX
PI Cheung AK;
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